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1 **Self-Service Kiosk Trainer**

2

3 **Field of Invention**

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5 The present invention relates to the field of delivering

6 web commerce through self-service kiosks. In particular it

7 presents a trainer facility for web-enabled self-service

8 kiosks such as automated teller machines, ticketing

9 machines, vending machines, web kiosks and Internet enabled

10 television set-top boxes with user interface peripherals.

11

12 **Background**

13

14 Self-service kiosks are networked computing devices

15 designed for use by multiple users to carry out self-

16 contained operations. Examples of such kiosks are

17 automated teller machines (ATMs), public Internet access

18 terminals, credit card operated and/or pre-paid ticket

19 collection terminals, network ticket machines and

20 computerised vending machines as these are designed for use

21 by multiple users where each user's interaction with the

1 kiosk is a separate self contained session. Home computers
2 are not kiosks as users make open ended changes to such
3 computers; however, they can emulate kiosks and personal
4 computers can also be used to control kiosks. The present
5 invention can also be applied to interactive television
6 having the facility to emulate kiosks. These facilities
7 would include user identifying means such as a smart card
8 reader.

9

10 Recently, there has been a significant increase in the
11 number of self-service kiosks, and related services,
12 offered to the general public. Examples are discussed in
13 recently filed US Patent Applications 09/870,293 and
14 09/870,057, the contents of which are incorporated herein
15 by reference. These self-service kiosks access electronic
16 pages over an Internet system via designated addresses.

17
18 The most common form of self-service kiosk still remains
19 ATMs. However, ticket collection terminals, computerised
20 vending machines etc. are becoming more common. The
21 increasing range of services offered by self service kiosks
22 can be somewhat off-putting to members of the public who
23 tend to harbour initial concerns with regards such new
24 technologies.

25
26 Such concerns manifest themselves in two main areas in
27 relation to self-service kiosks. The first of these is in
28 relation to payment procedures and in particular to the
29 provision of credit/debit card details through e-commerce
30 based applications. There is a general reluctance on
31 behalf of the general public with regards to the making of

1 such payments via self-service kiosks. This reluctance is
2 primarily due to a lack of familiarity with such systems.
3 Additionally, the fear of overspending by accidental
4 multiple orders or the ordering of the wrong products
5 aggravates the public's lack of confidence in such self
6 service kiosk systems.

7

8 It would therefore be highly advantageous for members of
9 the public to be given the opportunity to experiment with
10 such self-service kiosks without having to actually go
11 through with making a purchase. This would help increase
12 customer confidence so lending them to more readily employ
13 such self-service kiosks. Such an opportunity to
14 experiment with self-service kiosks may also help in
15 reducing a public fear of credit card fraud in e-commerce
16 systems, thus again leading to an increased use of self-
17 service kiosks.

18

19 The second area of concern to members of the public resides
20 in an inherent dislike for change and for new technology.
21 A consumer given the option between purchasing a ticket
22 from a new self-service kiosk or from the more traditional
23 manned ticket booth is likely to choose the latter due to a
24 reluctance to approach the new technology. Adding to this
25 reluctance is an embarrassment factor where members of the
26 public do not wish to experiment with the new technology in
27 case they make mistakes in the full view of others. Such
28 reluctance grows in the presence of rush hour crowds and in
29 particular where large queues have formed. Therefore, a
30 member of the public is unlikely to experiment with a new
31 self-service kiosk when they find themselves under pressure

1 from others to finish using the kiosk. This likelihood of
2 experimentation is further reduced in proportion to the
3 number of other people in the vicinity of the kiosk.

4

5 The distrust in providing credit card details and anxieties
6 raised in using such new technologies restricts the
7 complexity of and services offered by such self-service
8 kiosks. Provision of a method for overcoming such concerns
9 would result in an increased use of such self-service
10 kiosks while simultaneously allowing kiosk providers to
11 increase the range of services on offer.

12

13 It is the aim of the present invention to provide an on-
14 line trainer facility for a self-service kiosk that trains
15 a user in how to operate the kiosk.

16

17 A further aim of the present invention is to provide an on-
18 line simulation of a self-service kiosk that allows a user
19 to familiarise themselves with the presentation and
20 operating procedures of the kiosk.

21

22 **Brief Description of the Invention**

23

24 According to the present invention there is provided A
25 method of training a user of a self-service kiosk, the
26 method comprising the steps of:

27

28 providing a self-service kiosk for providing a service
29 to a user;

30

1 on or adjacent to the self-service kiosk, providing the
2 address of an online training facility; and

3
4 providing at said address an online training facility
5 instructing the user in the use of said self-service
6 kiosk.

7
8 According to a second aspect of the present invention there
9 is provided a method of training a user of a self-service
10 kiosk, the method comprising the steps of:

11
12 providing a self-service kiosk for providing a service
13 to a user;

14
15 on or adjacent to the self-service kiosk, providing the
16 address of an online simulator; and

17
18 providing at said address an online simulator simulating
19 the function of said self-service kiosk.

20
21 As discussed above the reluctance of a user to employ self-
22 service kiosks reduces the usefulness of such devices.
23 Therefore, the present invention provides means for a
24 member of the public on approaching a self-service kiosk to
25 obtain an address for both a trainer facility and a
26 simulator. The trainer facility or simulator can then be
27 accessed at a later time.

28
29 In particular the trainer facility provides a step by step
30 guide and explanation to the self-service kiosk and all the
31 facilities offered by it. Whereas the simulator provides a

1 simulation of the self-service kiosk, without the step by
2 step guide, such that the user can replicate directly the
3 experience of being at the self-service kiosk.

4

5 **Brief Description of the Drawings**

6

7 An example embodiment of the present invention will now be
8 illustrated with reference to the following drawings of
9 which:

10

11 Figure 1 is a schematic diagram of a self-service
12 kiosk according to the present invention;

13

14 Figure 2 represents an example screen display of the
15 self-service kiosk;

16

17 Figure 3 represents an example introduction screen
18 display of a trainer user interface for the self-
19 service kiosk;

20

21 Figure 4 represents an example screen display for the
22 first stage of the trainer user interface for the
23 self-service kiosk;

24

25 Figure 5 represents an example format error screen
26 display corresponding to the first stage of the
27 trainer user interface for the self-service kiosk;

28

29 Figure 6 represents an example screen display for the
30 second stage of the trainer user interface for the
31 self-service kiosk;

1 Figure 1 illustrates a self-service kiosk 1 having a
2 display 2 driven by a computer 3 that has access to one or
3 more servers 4 across a network 5.

4

5 The self-service kiosks 1 have user interfaces for
6 interaction with users 6. User interfaces may incorporate
7 devices such as monitors, touch screens, keyboards, mouse,
8 cash dispensers, card reading devices, identification
9 devices such as number pads for inputting a pin number or
10 cornea, iris or fingerprint readers.

11

12 Additionally, the self-service kiosk 1 provides a facility
13 for providing a printed document 7 of the address of an
14 online trainer or simulator facility that relate directly
15 to the self-service kiosk 1. In the preferred embodiment,
16 the address is the Uniform Resource Locators (URLs) of an
17 Internet server, although alternative address systems might
18 be employed for other networking systems.

19

20 In this embodiment, the hard copy 7 of the URLs is provided
21 by a business card located in a holder on or adjacent to
22 the self-service kiosk 1. Alternatively, it may be printed
23 on a receipt that relates to the transaction carried out by
24 the user 6. Business cards may have the URLs pre-printed
25 on them. If a receipt is employed to provide the required
26 URLs they may be pre-printed on the back or printed on
27 demand by the user 6. As well as being provided on the
28 self-service kiosk itself, a business card holder, not
29 actually attached to the self-service kiosk 1, but instead
30 located nearby, may equally well supply the hard copy 7.

1 Such hard copies 7 may include no other business details
2 except for the required URLs.

3

4 Figure 2 illustrates an example screen view 8 of a typical
5 self-service kiosk 1. The computer 3 executes a web
6 browser, for example an Internet Explorer ® browser
7 available from Microsoft ® of Redmond, WA. The browser
8 component controls a visible service window 9 that provides
9 access for the user 6 to the services on offer from the
10 provider. Web pages accessed by the browser may be stored
11 locally within the computer 3 or more preferably on one or
12 more servers 4 and so are accessed via the network 5. User
13 interface components may include all types of information
14 delivered through the Internet such as streamed video 10,
15 audio 11 or animation 12 as well as a company logo 13. A
16 service display 14 offers information regarding the trainer
17 facility and simulator URLs and invites the user 6 to
18 remove a hard copy 7 of the URLs, whether in the form of a
19 business card or a receipt as previously described.

20

21 Having approached and observed the self-service kiosk 1 the
22 user 6 may have concerns with regards to giving their
23 credit card details or to their technical ability in
24 working the self-service kiosk 1. On observing that the
25 self-service kiosk 1 offers an on-line trainer facility and
26 simulation facility the user 6 can take a hard copy 7 of
27 the URLs. Thereafter, the user 6 may access the trainer
28 facility and/or the simulator in their own time without the
29 pressure of being observed by other queuing consumers.
30 Therefore, since the self-service kiosk 1 provides URLs for

1 on-line trainer facilities it allows the user 6 to learn
2 how to efficiently employ the system in an environment of
3 their choice.

4

5 Figure 3 illustrates a screen shot of an introductory page
6 15 of the trainer web page accessed via the trainer URL.
7 This embodiment relates to a compound transaction that
8 requires the user 6 to employ the self-service kiosk 1 to
9 carry out multiple network interactions before the compound
10 transaction can be authorised. However, compound
11 transactions are just one example of the use to which a
12 self-service kiosk 1 may be employed. Others uses include
13 single step sales transactions from ticket or vending
14 machines. In particular, the introductory page 15 guides
15 the user 6 through the procedure relating to a self-service
16 kiosk 1 that acts as an on-line book seller. The
17 introductory page 15 comprises a title 16, a company logo
18 13, a brief explanation of the procedure involved 17 and a
19 continuation button 18. The explanation of the procedure
20 17 outlines the steps required to be completed, namely:

21

- 22 1. Browse to select a book from a book seller website
23 19;
- 24 2. Browse a second website to select a parcel carrier
25 to be used 20;
- 26 3. Browse a third website in order to authorise payment
27 from an on-line banking facility 21.

28

29 When the user 6 is ready to continue they are simply
30 required to activate the continuation button 18. This

1 transfers the user 6 to the first page of the trainer 22 as
2 shown in Figure 4.

3

4 The first page 22 can be seen to comprise of four sections,
5 three of which 19, 20, and 21 correspond to the websites
6 discussed in brief explanation of the procedure 17 outlined
7 on the introductory page 15. Each section includes a
8 section title 23 and one or more fields 24 that require
9 completion by the user 6 in order to finalise the compound
10 transaction.

11

12 Initially, a pointer 25 indicates the field 24 within which
13 the title of the book has to be entered. A prompt window
14 26 explaining the required format for this field is also
15 present. The user 6 is then required to complete the field
16 24 as instructed by the prompt window 26 before the trainer
17 allows them to proceed to the next step which involves
18 entering the book's author. The relevant fields 24 may
19 readily incorporate drop down menus to aid the user 6 in
20 their completion.

21

22 Figure 5 represents the situation where the user 6 has
23 entered the wrong format for a field 24, in this case the
24 book title field. On detecting the incorrect format for a
25 field 24 the trainer replaces the prompt window 26 with an
26 error message window 27 that highlights the mistake and
27 reiterates for the user 6 to insert the correct format
28 within the field 24. The error message window 27 remains
29 present until the user 6 inserts the correct format in the
30 required field 24.

31

1 On correctly entering the required details in relation to
2 the book the trainer then moves on to the website relating
3 to the parcel carrier 20 as shown in Figure 6. The pointer
4 25 and information within the prompt window 26 now relate
5 to the field 24 that corresponds to the choice of parcel
6 carrier. An error message window 27 will again replace the
7 prompt window 26 if the user 6 does not complete this field
8 24 correctly.

9

10 Once the parcel carrier has been selected the pointer 25
11 and prompt window 26 then move onto the third section 21
12 that relates to payment for the book and carrier services
13 via an on-line banking facility, see Figure 7. The
14 combination of the pointer 25 and prompt window 26 then
15 explain the location and format required in order to
16 correctly deal with the payment for the selected book.

17

18 In an alternative embodiment of the trainer facility,
19 relating to a self-service kiosk 1 that requires the user 6
20 to insert a credit card, the trainer facility displays a
21 graphic illustrating a credit card. The trainer facility
22 then require the user 6 to click the mouse over this
23 graphic at the appropriate point in order to proceed with
24 the transaction.

25

26 With all the required data correctly entered via three web
27 pages 19, 20, and 21 the user 6 is then prompted to click
28 to confirm their order 28. On confirming their order the
29 user is then presented with a confirmation screen 29 as
30 shown in Figure 8. The confirmation screen can be seen to

1 comprise a confirmation message 30 and options to either
2 observe an associated receipt 31 or to continue 32.

3

4 Figure 9 presents a screen display of an example receipt
5 33. Here the pointer 25 and prompt window 26 leads the
6 user through and provides an explanation of the contents of
7 the receipt 34. When finished viewing the receipt the user
8 is then prompted to continue 35.

9

10 The trainer facility then presents a conclusion screen 36
11 to the user 6, an example of which is shown in Figure 10.

12 A message 37 is displayed explaining to the user 6 that
13 they have successfully completed the trainer module and
14 will now be able to use the self-service kiosk 1 in order
15 to purchase books on-line. The user 6 is then presented
16 with three options, namely:

17

- 18 1. Ending the trainer facility session 38;
- 19 2. Using the trainer facility again 39;
- 20 3. Moving from the trainer facility to a corresponding
21 simulator 40.

22

23 Therefore, the user 6 can either end the session 38 or, if
24 further training is desirable, use the trainer facility
25 again 39 by returning to the introduction page 15.
26 Alternatively, the user 6 may decide to transfer to related
27 simulator 40. In effect the simulator button 40 moves the
28 user 6 between the URL for the trainer facility for the
29 self-service kiosk 1 and the relevant simulator (an example
30 embodiment of a simulator is described below).

09915953-072601

The present invention also provides an on-line simulator in addition to the trainer facility. The simulator acts to reproduce the self-service kiosk 1 without actually finalising the related transaction. As an example, if the simulator was to reproduce an ATM it may display graphics illustrating money being dispensed. Similarly, if the simulator was to reproduce a self-service kiosk 1 that requires the user 6 to insert a credit card, it then displays graphics illustrating the credit card and again require the user 6 to click the mouse over this graphic in order to proceed.

Figure 11 illustrates a screen shot of the introduction page of a simulator 41 employed to implement a compound transaction. This simulator relates to a self-service kiosk 1 that provides a facility for booking a flight, a hotel and for ordering currency via web pages for foreign travel. The introduction page of the simulator 41 comprises a title 42, an explanation of the procedure involved 43, a logo 13 and a continuation button 44.

On choosing to continue 44 from the introduction page 41 the user 6 is presented with the simulation 45 of the self-service kiosk 1 without the aid of the pointer 25 or the prompt window 26, see Figure 12. The user 6 is expected to enter information concerning their travel arrangements along with their credit card, name and address in the relevant fields 24. On activating the confirm button 46, the user 6 is presented with a conclusion page 47 or 48, as illustrated in Figure 13, instead of the transaction

1 actually being actioned as would be the case on the self-
2 service kiosk 1.

3

4 Figure 13(a) represents the conclusion page 47
5 corresponding to the scenario where the credit card, the
6 name or the address details have not been entered in the
7 correct format as required by the self-service kiosk 1. A
8 message 49 is presented that highlights the field or fields
9 that have been incorrectly entered, along with the correct
10 format required in order to complete the transaction
11 correctly. The user 6 is also presented with three options
12 intended to finish the simulation session, namely:

13

- 14 1. Ending the simulator facility session 50;
- 15 2. Using the simulator facility again 51;
- 16 3. Moving from the simulator facility to the
17 corresponding trainer 52.

18

19 Figure 13(b) presents the conclusion page 48 where the user
20 6 has successfully completed the foreign travel simulator.
21 In this instance, the user 6 is presented with a message 49
22 notifying them of their success. The three options 50, 51,
23 and 52 as discussed in relation to an unsuccessful
24 completion of the foreign travel simulator page are also
25 presented in order for the user 6 to finish.

26

27 The present invention addresses the problems relating to
28 users employing on-line commerce systems for compound
29 transactions and in particular to those relating to self-
30 service kiosks. The provision of links to websites that
31 relate to on-line trainer facilities and simulators allow

1 users to increase their familiarity with individual self-
2 service kiosks. The associated increased confidence
3 obtained by users makes them more likely to employ such
4 self-service kiosks, while reducing their concerns with
5 regards over spending due to mistaken multiple purchases on
6 their credit cards or credit card fraud by third parties.

7
8 Where the term credit card is used, it will be recognised
9 by one skilled in the art that the same use may be made of
10 a debit card, electronic cash card, electronic payment
11 card, electronic wallet or personal identifier device.

12
13 The invention extends to computer programs in the form of
14 source code, object code, code intermediate sources and
15 object code (such as in a partially compiled form), or in
16 any other form suitable for use in the implementation of
17 the invention. Computer programs may be standalone
18 applications, software components or plug-ins to other
19 applications. Computer programs may be web pages.
20 Computer programs may be embodied on a carrier, being any
21 entity or device capable of carrying the computer program:
22 for example, a storage medium such as ROM or RAM, optical
23 recording media such as CD-ROM or magnetic recording media
24 such as floppy discs. The carrier may be a transmissible
25 carrier such as an electrical or optical signal conveyed by
26 electrical or optical cable, or by radio or other means.
27 Computer programs may be provided for download across the
28 Internet from a server. Computer programs may also be
29 embedded in an integrated circuit.

- 1 Further modifications and alterations may be made within
- 2 the scope of the invention herein disclosed.
- 3

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